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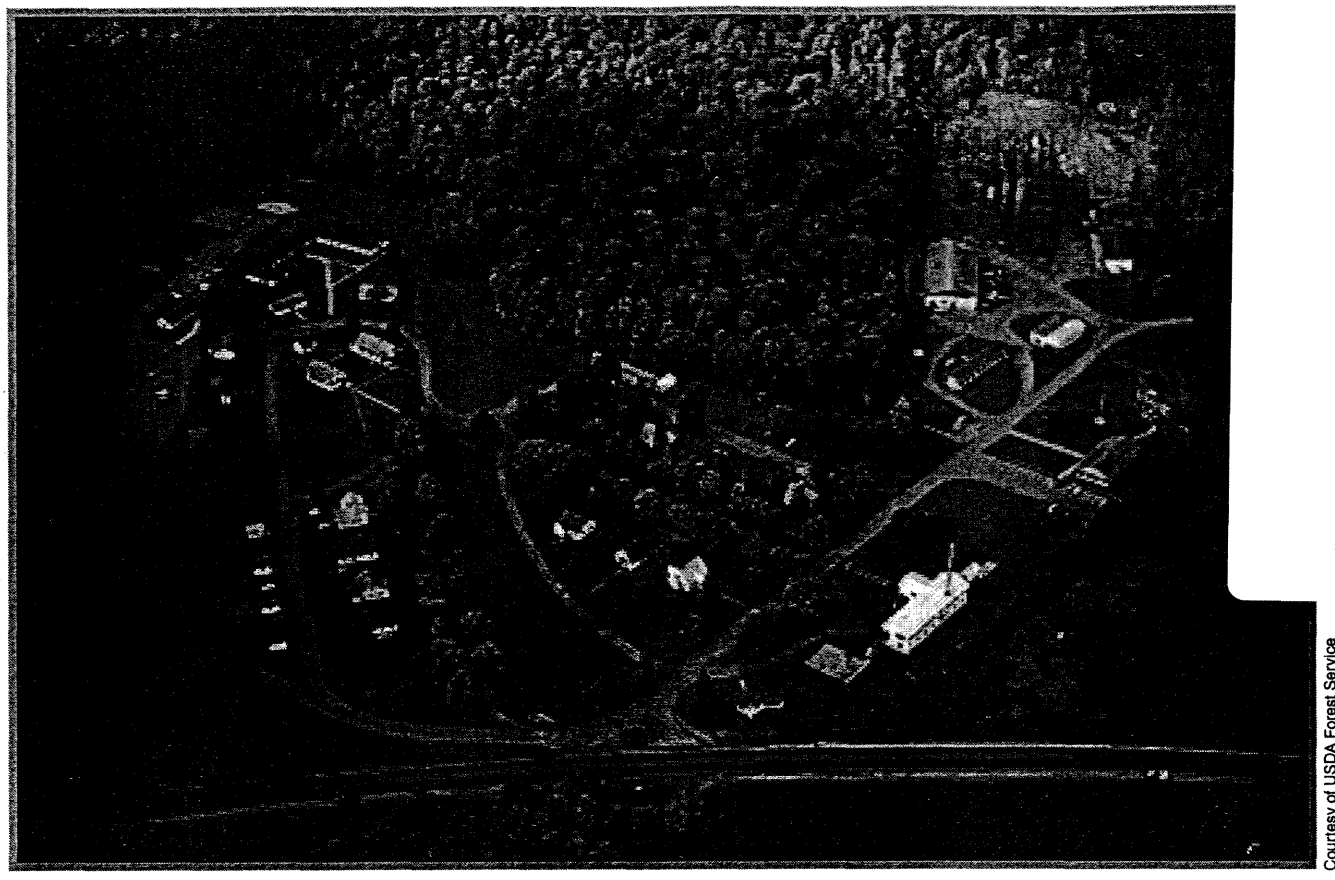

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Stakeholders' Perceptions of Parcelization in Wisconsin's Northwoods

Mark G. Rickenbach and Paul H. Gobster

ABSTRACT

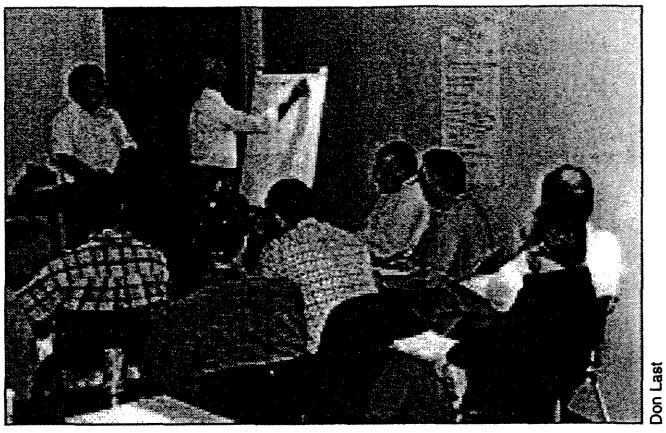
Parcelization, the process by which relatively large forest ownerships become subdivided into smaller ones, is often related to changes in ownership and can bring changes to the use of the land. Landowners, resource professionals, and others interested in Wisconsin's Northwoods were asked their views on parcelization in a series of stakeholder forums. We analyzed their statements through the lens of forest sustainability with its ecological, economic, and social dimensions. The analysis shows how sustainability might be used to structure future research and discourse within local communities to foster fuller considerations of landscape and land use change.

Keywords: land use; nonindustrial private forestland; public perceptions; sustainability

Above: **Housing developments are a possible, but not inevitable, result of parcelization.**

When Prohibition-era mobster Al "Scarface" Capone wanted to escape the tribulations of life in Chicago, he headed for "The Hideout," his 400-acre lake and forest retreat in the Northwoods of Wisconsin. Since then, many other urbanites from the upper Midwest have similarly sought their getaway in the Northwoods, like Capone looking for

solace amid the region's expansive forests, scenic lakes, and abundant fish and wildlife. This recreational haven also yields forest products that support thriving lumber and paper industries. Although recreation and forest products have sustained many Northwoods' communities (Marcouiller and Mace 1999), recent shifts in land ownership and use are altering the relationship between people and communities and their forests.



Don Last

Stakeholders at the Wisconsin Rapids forum share their thoughts.

The Northwoods is a loosely defined region of northern Minnesota, Wisconsin, and Michigan. In Wisconsin, the focus of our work, it commonly refers to the northernmost 22 counties. Of the 14 million acres, 71.8 percent is forested, and nonindustrial private forests (NIPF) dominate the landscape (43.8 percent) (Schmidt 1998). Forest industry and corporations account for 14.6 percent, and tribal entities own 3.5 percent. Through federal, state, and county ownerships, the public manages the remaining forests (38.1 percent).

Although the distribution among these ownership classes has changed very little since the 1980s, the number of NIPF owners in Wisconsin's Northwoods grew from 95,600 in 1985 to 107,600 in 1997 (Roberts et al. 1986; Leatherberry 2001). From 1990 to 2000 the population of the Northwoods grew by 10.6 percent, just above the statewide average of 9.6 percent, and seven Northwoods counties grew by more than 15 percent (US Bureau of the Census 2002). Following this population growth, housing density has also increased (Radeloff et al. 2000).

With many newcomers wanting their own piece of the Northwoods pie, relatively large ownerships are being subdivided into smaller ones. This parcelization has been happening in the state for many decades, but there is a growing concern that its current pace and characteristics are changing the Northwoods. In recent years some industrial landholders have split relatively large forest blocks into parcels as small as 40 acres. More frequently seen is the subdivision of 40- or 80-acre NIPF parcels into recreational woodlots of 5 and 10 acres or smaller (Klase and Guries 1999). With a frenzy of real estate transactions in the past 10 years, few attractive parcels have escaped scrutiny. Even Capone's Hideout, long since converted to a local tourist attraction, hit the chopping block for sale as four parcels (Anon. 2000). Local citizens, public land managers, and individuals and groups who depend on the sustainability of the region's forest resources are now asking how parcelization and forestland conversion will affect them.

Simply redrawing the boundary lines on a map does not affect the visual or functional characteristics of the forest. Attendant changes in ownership, use, and cover, however, can have myriad consequences—some positive, some negative. Parcelization and its associated activities have been linked to ecological impacts on wildlife (Theobold et al. 1997), water quality (Wear et al. 1998), and land cover (Turner et al. 1996; Johnson 2001). Local economies can change (Harper et al. 1990), and regional wood supply can decrease (Wear et al. 1999). The social dynamic can also change. New people bring new values and ideas, and the increase in density increases the potential for conflict (Egan and Luloff 2000; Smith and Krannich 2000).

This article describes the discourse that emerged from an exploratory study of the effects of parcelization on Wisconsin's Northwoods as perceived by concerned stakeholders. The three "pillars" of forest sustainability—ecological, economic, and social (Salwasser et al. 1993)—serve as the lens for focusing the stakeholders' perspectives. After presenting our findings, we discuss how researchers, resource professionals, and policymakers who seek to study or foster discussion about parcelization might more effectively structure their efforts.

Methods

Interest in parcelization and fragmentation issues among Northwoods stakeholders compelled the nonprofit group 1,000 Friends of Wisconsin ("1000 Friends") and its research and education arm, the Land Use Institute, to establish a Forest Fragmentation Education Initiative in late 2000. The goal of the initiative was

> ... to connect land management agencies, woodland organizations, and local units of government with forest landowners to encourage a discussion about trends in woodland ownership and use and their implications for the long-term environmental and economic well-being of forestlands in the state. (Last and Gobster 2001)

Partners in the initiative included government, academic, forest industry, landowner, and nonprofit interests.

Working with these partners, the coauthors guided the stakeholder input process. We felt it was critical to understand how various interests perceive and experience parcelization. We identified a set of discussion questions for tapping stakeholders' perceptions of parcelization and fragmentation based on a process model for understanding landscape change. This model conceptualizes the process of landscape change as one in which observable patterns of change result from one or more driving forces of social, eco-

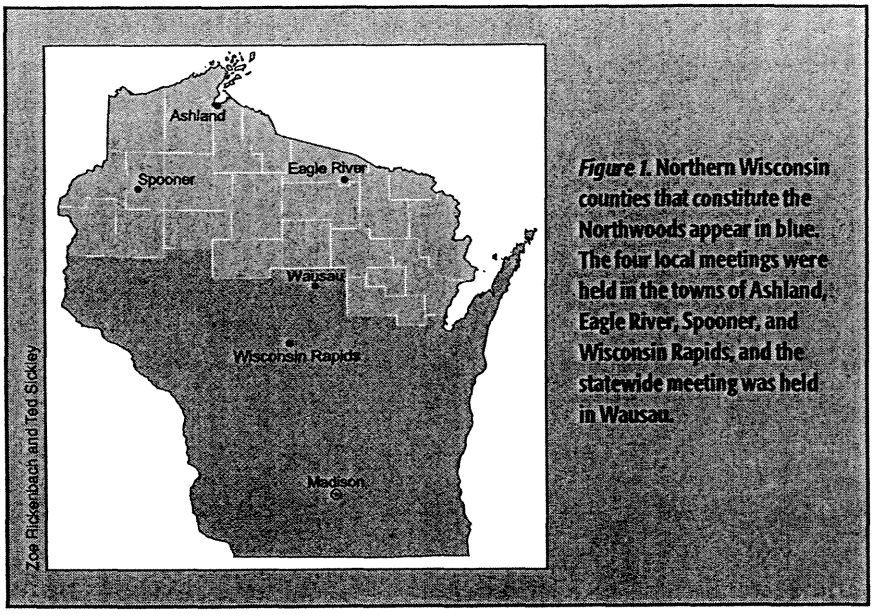


Figure 1. Northern Wisconsin counties that constitute the Northwoods appear in blue. The four local meetings were held in the towns of Ashland, Eagle River, Spooner, and Wisconsin Rapids, and the statewide meeting was held in Wausau.

nomic, or technological origin (Gobster et al. 2000). These changes may have effects on people and ecosystems, sometimes for the better and sometimes for the worse. Applying the model to the issues of parcelization resulted in the following set of questions:

- *Patterns:* What patterns and sizes of parcelization and fragmentation have you seen? Where are they occurring? To what extent is parcelization resulting in fragmentation or land development?
- *Drivers:* How or in relation to what are parcelization and fragmentation occurring? What are the causes?
- *Effects:* Do you see any problems resulting from parcelization and fragmentation? Impacts on community? Any benefits? Impacts on ecosystem? Impacts to you personally?
- *Response strategies:* What do you see as the most effective solutions to fragmentation issues? What more can or should be done? By whom?

Four regional forums were held in northern and central Wisconsin, and a statewide forum took place in Wausau, an urban gateway to the Northwoods *(fig. 1)*. Attendance was promoted through the general media and open to the public; 182 stakeholders participated. Because registration was required, we were able to ascertain the interests that participants represented *(table 1)*.

Transcripts from the sessions were studied using thematic analysis (Boyatzis 1998). First we coded the text statements to identify common ideas present in the data, and we then coded the data for opinions, statements, and descriptions as they related to the ecological, economic, and social dimensions of sustainability. Within these three coded dimensions, we sought to identify commonalities and differences among the participants to more thoroughly understand their understanding of the effects of parcelization.

Results

The ecological, economic, and social dimensions of sustainability accounted for different volumes of comments. Roughly half the coded comments related to the social dimension. The economic dimension accounted for approximately a third, and the remaining sixth fell into the ecological. This measure does not necessarily correspond to participants' ranking of the issues, but what they talked about suggests the tenor and focus of conversation. Nearly all discussions concerned northern Wisconsin. Generally, the participants' views and background were sympathetic to land conservation and management. For example, individuals in favor of additional housing and industrial development in Northern Wisconsin were either not present or chose not to make their opinions known.

In the discussion below, the quotations are actual comments that were representative of participants' statements about that theme.

Social themes. Our analysis yielded three themes within the social dimension. The strongest of these themes was the influx of new people and new uses of the land brought on by parcelization. Participants offered a range of perspectives on how people and land uses are changing and distinguished long-term residents from relative (or potential) newcomers: "Personally, I think we should build a fence around [the Northwoods] here along Highway 29 and tell everybody else to go to Texas."

New people have brought new ideas about the whole spectrum of forest use: "... increased user conflicts, more related to quiet sports versus motorized sports." "Just in our wooded subdivision, where everybody wants manicured bluegrass and we're the lone prairie enthusiasts."

To be sure, participants evidenced an element of protectionism, about both the place they live and more fundamental ideas: "... the private property right is one of our most cherished constitutionally protected rights and, therefore, most difficult to overcome. And I don't know ... that you even want to overcome it."

One new facet of the changing social fabric—the second theme of social sustainability—was the way in which these property rights are exercised. Participants agreed that access to both public and private land was changing. In their opinion, parcelization has led to the posting of more private land. In some cases, hunters have been excluded from land they hunted for years: "That's what really sets me off. I can't hunt now where I used to hunt."

In other cases, trail easements were nullified: "... when land gets subdivided, the traditional snowmobile trail access across private land ... evaporate[s]."

According to participants, the closing of private lands to some traditional uses and the influx of people seeking new and different recreational opportunities have increased the pressure on public land: "It seems to have become

an issue for the public lands, and our citizens ... are demanding different uses than they have had traditionally in the past."

Participants viewed this reduced quantity and quality of access as a very negative outcome of parcelization.

The third theme of the social dimension was a focus on the policies and institutional changes needed to sustain communities grappling with the effects of parcelization. Local government was described as central to achieving operable solutions, but land use planning and zoning are highly contentious: "Some towns are just starting to do [land use planning] now. But even having the plan, it's just a plan. And it is very difficult to try to implement that."

Although it does not mandate planning by counties and townships, the state requires that future decisions affecting land use (e.g., zoning changes) be guided by a land-use plan. However, local officials who act either to maintain the status quo or advance new ideas risk retribution: [after passing a land use plan,] "... the whole town board was voted out and a new town board was voted in ... This basically split the whole township apart."

Despite tacit support for land use planning and even zoning by some of the participants, there was no consensus that local government could or would act on a widespread basis. There was a sense, however, that local government faced huge challenges in addressing land use questions and that additional capacity was needed.

Table 1. Affiliation of individuals attending the workshops.

Organization or interest	Participants*
Wisconsin Department of Natural Resources, Division of Forestry	27
NIPF owners	22
Wisconsin Department of Natural Resources, other divisions	16
Conservation and environmental organizations	16
USDA Forest Service	14
University or extension	14
Forest industry	13
Local government	12
County conservation districts	8
County forests	8
Tribal government	4
Interested citizens	4
Forestry consultants	3
State legislature	3

Organizations or interests with fewer than three attendees are not listed.

Economic Themes

Participants discussed three economic sustainability themes related to parcelization. Taxation was a topic of considerable discussion: "... forest fragmentation is a problem here ... And it's really the tax issue that's hurting, forcing [landowners] into [subdividing], to dealing with that; be it the property tax, the estate tax ..."

Several participants had witnessed or experienced rising land values at places throughout the Northwoods: "And yet the normal person cannot afford to go buy an 80 or a 40, so what they're doing is, they're buying a 5 or a 10."

Despite concerns over rising property taxes and unaffordable land, many participants saw the link between taxes and local services: "One of the benefits of parcelization has been an increased tax base, the ability of the county and some town governments to provide services that were not possible a decade ago."

Yet not everyone was convinced that the additional revenue actually covered the costs: "... the long-term services would actually cost [the county] more than the taxes would bring in."

Overall, there was a desire for lower property taxes but no consensus on viable alternatives for either shifting the tax burden or reducing services.

Another economic theme was the potential impacts of parcelization on the sustainability of forest industries and fiber supply. Many participants were aware of big changes in ownership of the state's industrial forestlands; by some estimates nearly 90 percent had changed ownership in the past decade (Dresang 2002). This shift to new corporate owners was unsettling: "So we're having this tremendous turnover of landownership among corporations, and corporate profits have come into play. Can we make more money selling the land [than managing it for timber]?"

Even with the continuation of large industrial ownerships, participants questioned continued supply from public lands and NIPFs: "Everyone knows that it's getting harder and harder to get timber supplied from the Forest Service."

In particular, parcelization of NIPFs led some to speculate both on the willingness of new owners to harvest and on how small a parcel can get before it becomes inoperable.

The final economic theme explored the role of economic development and growth. Participants linked parcelization with more people and greater growth; however, there was no consensus on its desirability: "... the more people that show up, the more money I make. But obviously, I would like to see the Northwoods remain the same."

Some felt that in the long run, parcelization might eventually limit tourism—a major economic sector in the Northwoods: "... [parcelization] can eventually affect some of the tourism dollars."

Others believed that parcelization and growth could be beneficial to the community: "I'm of the belief that the year-round resident or even the six-month snowbird resident that has a good retirement income contributes more economically to the community than you get from the weekenders."

Again, the participants were unsure what might constitute a sustainable economic solution to the concerns surrounding parcelization and development.

Ecological Themes

Within the ecological dimension, two principal themes emerged. Partici-

pants expressed concerns over the effects of parcelization on wildlife habitat and biodiversity. Some comments were specific: "... it becomes harder and harder, I think, to manage deer and some other species as these large tracts of land are subdivided into smaller pieces."

Others were more general: "You start to fragment along roads and all the attendant issues come up ... impact on wildlife, biodiversity, and so forth."

Remarks encompassed game species as well as endangered and reintroduced species in the face of a changing landscape with more people, roads, and land uses: "... roads do things to wolves."

Participants saw parcelization as having a primarily negative effect on wildlife and biodiversity.

The other ecological theme that participants identified was sustaining the quality and quantity of the region's surface water resources. Some felt that recent changes in state regulation would allow development of home sites in wetlands previously not accessible: "There's a fear about forested wetlands being developed."

In addition, many participants were concerned about the water quality on lakes: "And as you tend to fragment the forests, you don't have as many forests. You have a bigger hit on the lakes and the water quality."

Participants believed that increased parcelization would have mainly negative consequences for water resources.

Discussion and Implications

The views expressed during the series of forums are not representative of all who live, work, or recreate in the Northwoods. However, the study does provide information about the views of stakeholders—from forest industry and environmentalists to private owners and public resource professionals—who are concerned about forest parcelization in the Northwoods. Our findings shed light on two things. First, we identified how workshop participants understand parcelization. Second, our analysis suggests future approaches to research and outreach efforts regarding parcelization.

The three dimensions of sustainability proved useful in framing the analysis. Participants addressed all three dimensions but tended to stress the social impacts. Ecological impacts seemed much less important, but as one peer reviewer suggested, they may be confounded or confused by the other dimensions. This is in one way surprising, because the participants (see *table 1*) might be assumed to be "ecologically literate." However, the ecological effects of parcelization can raise politically sensitive issues, such as the amount of early versus late successional forests, and the diverse group of stakeholders may have judiciously avoided the topic.

Future efforts to engage stakeholders will require more balance across the three dimensions of sustainability as well as linkages between them. The ecological implications (positive and negative) were rarely fleshed out to an extent that they were clear to all individuals involved in the discussion. In the case of the social and economic dimensions, society has identified, if not desired outcomes, at least general directions. For example, growth and jobs are seen as desirable, as are opportunities to recreate and own land. Specific questions of how much growth or who should own the land may be more contentious. On the ecological dimension, there is likely less agreement: Biodiversity may be a desirable outcome, but by what measure and over what scale and time horizon still elude consensus.

Participants displayed little knowledge of how perceived economic impacts translated into actual dollars. Moreover, many of their assertions deserve a closer look to see the extent to which their generalizations are warranted. As members of a market economy, we are all intuitive economists: We often make judgments of costs and benefits without fully considering all the data. Are such intuitive models sufficient for complex issues like forest parcelization?

Future research and outreach will require a more concerted attempt to understand the full range of conditions and viewpoints relating to parcelization. Some people benefit from parcelization, but their voices were largely absent from this series of forums. Until these and other voices are incorporated into a more coherent program of study and discourse about the Northwoods, it will be difficult to fully understand and make decisions regarding parcelization as an ecological, economic, and social reality. Hence, the focus on parcelization must expand to a broader range of conditions and interests. Society must engage the fundamental tension of parcelization that pits individual freedoms (property rights, harvest decisions) that have measurable impacts against societal values (species preservation, economic development) that have, in many cases, more ambiguous benefits and costs.

Although the landscape of the Northwoods has changed significantly since the days of Al Capone, this region and other forest regions across the country are increasingly havens for many people. But as more and more people look to the forests for their "hideouts," it will be increasingly important to seek ways to protect the full range of values that forests provide to residents and visitors. In grappling with the future role of forests and their use, a sincere and continued discourse on forest sustainability can help to alleviate social, economic, and ecological consequences associated with parcelization.

Literature Cited

ANONYMOUS. 2000. *Gangster Al Capone's North Woods hideout for sale.* Reuters, September 29.

BOYATZIS, R.E. 1998. *Transforming qualitative information: Thematic analysis and code development.* Thousand Oaks, CA: Sage Publications.

DRESANG, J. 2002. Forest ownership uprooted: New corporate strategy has much of state's timber property changing hands. *Milwaukee Journal-Sentinel,* August 11. Available online at www.jsonline.com/bym/News/aug02/65561.asp; last accessed by staff June 2003.

EGAN, A.F., and A.E. LULOFF. 2000. The exurbanization of America's forests: Research in rural social science. *Journal of Forestry* 98(3):26–30.

GOBSTER, P.H., R.G. HAIGHT, and D. SHRINER. 2000. Landscape change in the Midwest: An integrated research and development program. *Journal of Forestry* 98(3):9–14.

HARPER, S.C., L.L. FALK, and E.W. RANKIN. 1990. *The northern forest lands study of New England and New York: A report to the Congress of the United States on the recent changes in landownership and land use in the northern forests of Maine, New Hampshire, New York, and Vermont.* Rutland, VT: USDA Forest Service.

JOHNSON, M.P. 2001. Environmental impacts of urban sprawl: A survey of the literature and proposed research agenda. *Environment and Planning A* 33: 717–35.

KLASE, W., and R.P. GURIES. 1999. *Forestland ownership in Vilas and Oneida Counties, Wisconsin, 1975–1994.* Working Paper 26. Madison: University of Wisconsin Land Tenure Center.

LAST, D., and P.H. GOBSTER. 2001. The causes, consequences, and controls of forest fragmentation in Wisconsin: A summary of comments from public listening sessions. Unpublished manuscript.

LEATHERBERRY, E.C. 2001. *Wisconsin private timberland owners: 1997.* Research Paper NC-339. St. Paul: USDA Forest Service, North Central Research Station.

MARCOUILLER, D., and T. MACE. 1999. *Forests and regional development: Economic impacts of woodland use for recreation and timber in Wisconsin.* G3694. Madison: University of Wisconsin Extension.

RADELOFF, V.C., R.B. HAMMER, P.R. VOSS, A.E. HAGEN, D.R. FIELD, and D.J. MLADENOFF. 2000. Human demographic trends and landscape level forest management in the northwest Wisconsin Pine Barrens. *Forest Science* 47(2):229–41.

ROBERTS, J.C., W.G. TLUSTY, and H.C. JORDAHL. 1986. *The Wisconsin private non-industrial woodland owner: A profile.* Occasional Paper Series Paper 19. Madison: University of Wisconsin Extension, Departments of Urban and Regional Planning and Landscape Architecture.

SALWASSER, H., D.W. MACCLEERY, and T.A. SNELLGROVE. 1993. An ecosystem perspective on sustainable forestry and new directions for the US National Forest system. In *Defining sustainable forestry,* eds. G.H. Aplet, N. Johnson, J.T. Olson, and V.A. Sample. Washington, DC: Island Press.

SCHMIDT, T.L. 1998. *Wisconsin forest statistics, 1996.* Resource Bulletin NC-183. St. Paul: USDA Forest Service, North Central Forest Experiment Station.

SMITH, M.D., and R.S. KRANNICH. 2000. "Culture clash" revisited: Newcomer and longer-term residents' attitudes toward land use, development, and environmental issues in rural communities in the Rocky Mountain West. *Rural Sociology* 65(3):396–421.

THEOBOLD, D.M., J.R. MILLER, and N.T. HOBBS. 1997. Estimating the cumulative effects of development on wildlife habitat. *Landscape and Urban Planning* 39: 25–36.

TURNER, M.G., D.N. WEAR, and R.O. FLAMM. 1996. Land ownership and land-cover change in the southern Appalachian highlands and the Olympic Peninsula. *Ecological Applications* 6(4):1150–72.

US BUREAU OF THE CENSUS. 2002. *US Census factfinder.* Available online at http://factfinder.census.gov; accessed by authors February 2002.

WEAR, D.N., M.G. TURNER, and R.J. NAIMAN. 1998. Land cover along an urban-rural gradient: Implications for water quality. *Ecological Applications* 8(3): 619–30.

WEAR, D.N., R. LIU, J.M. FOREMAN, and R.M. SHEFFIELD. 1999. The effects of population growth on timber management and inventories in Virginia. *Forest Ecology and Management* 118:107–15.

Mark G. Rickenbach (mgrickenbach@wisc.edu) is assistant professor, Department of Forest Ecology and Management, University of Wisconsin–Madison, 1630 Linden Drive, Madison, WI 53706-1598; Paul H. Gobster is research social scientist, USDA Forest Service, North Central Research Station, Evanston, Illinois. *Funding: Wisconsin Environmental Education Board; Renewable Resources Extension Act; and USDA Forest Service, North Central Research Station.*